REMARKS

Claims 1-20 are pending. Independent claims 1, 11, and 20 were rejected under 35 U.S.C. 102(e) as being anticipated by Hum (U.S. Patent Application Publication No. 2004/0123047). The independent claims 1, 11, and 20 were also rejected under 35 U.S.C. 102(e) as being anticipated by Webb (U.S. Patent No. 6,751,721).

Hum describes "use of an import cache and/or an export directory with an agent within to respond to requests for data. The import cache stores data that has been imported through the agent. The export directory stores information related to data that has been exported through the agent. Because the import cache and the export directory only store data that has passed through the agent, not all data transferred within a system are tracked by a single import cache or export directory" (Abstract). "If the import cache returns a match, 430, the matching entry (or the relevant data from the matching entry) is retrieved from the import cache, 440. If the import cache returns a miss, indicating no match, the request for the data is sent to the nodes and/or agents represented by the agent receiving the request, 445. In one embodiment, the cache protocol state machine forwards the request to the node/agent(s) through the tracker, router and cluster interface as illustrated above with respect to FIG. 2." (Paragraph 96). "If a matching entry is retrieved, 440, the data retrieved from the matching entry is used to respond to the request. In one embodiment, the cache protocol state machine generates a response message, for example, a DataF message or a DataS message. The response message is sent through the system interface as illustrated above with respect to FIG. 2." (Paragraph 97).

Hum, however, does not describe "providing response information with a completion indicator to the processor" as recited in independent claims 1, 11, and 20. The Examiner argues that Hum describes an ACK message that indicates the completion of the data request. However, the ACK message is not any completion indicator but instead is merely an acknowledgment of the message sent. In any case, the ACK is sent to indicate "that the requested data has been sent to the Requesting node." Paragraph 44. The ACK is not sent only after making some other determination.

By contrast, the independent claims 1, 11, and 20 as well as dependent claims 2 and 4

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have been amended to further clarify claim scope.

Claim 1 now recites "determining that the cache access request can be handled locally by using the remote data cache without having to probe remote nodes." The response is provided with a completion indicator, in one example a completion bit, "when it is determined that the cache access request can be handled locally." Hum makes no such determination. Hum does not determine if the cache access request can be handled locally. Furthermore, Hum does not provide a completion indicator "when it is determined that the cache access request can be handled locally." In fact Hum merely sends ACK messages. The amendments are supported in Figure 9 and the associated description.

More specifically, page 24, line 24 – page 25, line 17 states that "In other words, the request can be handled locally if a valid copy of the memory line is in the remote data cache.... If the request can be handled locally, the remote data cache provides information to the cache coherence controller 903-3. In typical implementations, the requesting processing node expects responses from other processing nodes before the transaction can complete. If a transaction is satisfied locally by a remote data cache, other processing nodes would not have to be probed in an optimal case and consequently would not generate responses. ... sending extraneous probes and probe responses decreases the benefits of having a remote data cache satisfy a transaction locally.....Consequently, the techniques of the present invention provide mechanisms for allowing a cache coherence controller with a remote data cache to satisfy a transaction locally without having to send extraneous probes or probe responses. In one embodiment, the techniques of the present invention provide that a cache coherence controller responds to a requesting processing node with response information as well as a completion indicator."

Claim 11 has been amended to recite providing response information with a completion indicator to the processor "if it is determined that a valid copy of the memory line is in the remote data cache." Hum does not provide a completion indicator "if it is determined that a valid copy of the memory line is in the remote data cache." The ACK message in Hum is sent merely to indicate that the requested data has been sent.
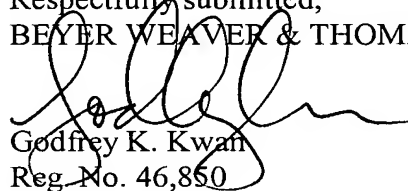
Claim 20 has been amended to recite providing response information with a completion

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indicator to the processor "after determining that the cache access request can be completed locally." Hum does not provide a completion indicator "after determining that the cache access request can be completed locally." The ACK message in Hum again is sent merely to indicate that the requested data has been sent. No prior determination is made.

Dependent claim 4 now explicitly recites that a completion indicator is a completion bit. The ACK message that the Examiner argues is a completion indicator is not a completion bit. Consequently, dependent claim 4 is believed allowable.

In light of the above remarks relating to independent claims and certain dependent claims, the remaining dependent claims are believed allowable for at least the reasons noted above. Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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